

**MONDAY, August 21, 2017**

| Time        | ROOM A   | ROOM B   | ROOM C  | ROOM D   | ROOM E  |
|-------------|--|--|---|--|---|
| 8:45–9:25   | <b>PLENARY LECTURE</b><br><b>J. Kirchner: Dynamics of water age and streamflow chemistry, from minutes to millennia</b>  |  |   |  |   |
| 9:30–9:50   | <b>S. Gerber:</b> From the rhizosphere to continents: Modeling tools to diagnose the nitrogen cycle  | <b>J. van Dijk:</b> Nutrient stoichiometry as a driver of community composition and community responses to global change   | <b>E. Tipping:</b> Modelling aquatic metal toxicity with WHAM-F <sub>TOX</sub>  | <b>M. M. Hefting:</b> Woody debris degradation and C stabilisation in forest soils: An introduction to the LOGLIFE experiment                              | <b>A.-D. Schmitt:</b> Biogeochemical cycle of calcium at the beech tree–soil solution interface from the Strengbach Critical Zone Observatory (NE France): Insights from stable Ca and radiogenic Sr isotopes                   |
| 9:50–10:10  | <b>S7 Nitrogen</b><br><b>S. Bernal:</b> Riparian and in-stream controls of hydrological N export in Mediterranean headwater streams  | <b>S12 Biodiversity</b><br><b>C. Bastianelli:</b> Evidence for variations in soil biogeochemical composition between open-lichen woodlands and closed-moss forests in Quebec | <b>S10 Metals</b><br><b>B. Petrusovski:</b> Adsorption on iron-oxide coated sand and in-situ regeneration: An innovative arsenic removal approach                                 | <b>S15 Dead wood</b><br><b>M. Palviainen:</b> The role of coarse woody debris in nutrient cycling of boreal forests  | <b>S13 Weathering</b><br><b>G. van der Heijden:</b> Non-crystalline phases are sources of Mg, Ca and K in the soil and actively contribute to geochemical equilibrium processes: Evidence from a stable isotopic dilution assay |
| 10:10–10:30 | <b>K. Isobe:</b> Spatio-temporal dynamics of N cycling by the microbial community in forest soils  | <b>R. Mills:</b> Is there a link between plant and microbial communities and the turnover of soil organic matter in mountain systems?  | <b>R.-M. Couture:</b> Geochemistry of trace elements associated with Fe-Mn nodules in the sediments of limed boreal lakes   | <b>D. Peršoh:</b> Effect of woody debris on carbon mineralization, microbial biomass and fungal community in the organic horizon of a Norway spruce forest | <b>D. Sampietro:</b> Weathering and organic matter degradation in the boreal riparian zone: Modelling and key processes   |
| 10:30–10:45 | COFFEE BREAK   |  |   |  |   |
| 10:45–11:05 | <b>M. Vile:</b> The unusual suspects. Are N <sub>2</sub> -fixing methanotrophs master regulators of methane fluxes from boreal peatland ecosystems?  | <b>D. L. Godbold:</b> Linking ectomycorrhizal community structure to function in trees at the alpine tree line   | <b>A. Amirbahman:</b> Remediation of mercury in wetland sediment using granular activated carbon and zero-valent iron   | <b>P. Šamonil:</b> Biogeomorphic and soil evolutionary effects of trees in three temperate regions representing a gradient of soil weathering and leaching | <b>F. Chabaux:</b> U activity ratios in surface waters: Tracers and chronometers of water transfers in the critical zone  |
| 11:05–11:25 | <b>M. Novák:</b> Nitrogen cycling in ombrotrophic peat bogs in the Czech Republic: Is microbial N-fixation occurring at atmospheric depositions of reactive N higher than 10 kg/ha/yr?                                     | <b>E. Bonifacio:</b> The effect of soil on the invasiveness of alien species: The case of red oak  | <b>S. J. Nelson:</b> Water chemistry matters: Mercury bioaccumulation in dragonfly larvae bio-sentinels of northeastern lakes is correlated with Al, pH, DOC, and lake morphology | <b>I. Kurganova:</b> Impact of mineral additions and temperature on decomposition of aspen bark: Results of a one-year incubation experiment               | <b>M. Erlandsson:</b> New formulations of mineral-dissolution equations in PROFILE  |
| 11:25–11:45 | <b>S7 Nitrogen</b><br><b>K. J. Nadelhoffer:</b> Decadal scale fates of background atmospheric and elevated nitrogen deposition to ecosystem nitrogen pool distributions in oak and red pine forests in Massachusetts (USA) | <b>S12 Biodiversity</b><br><b>E. Kaarlejärvi:</b> Is biodiversity a driver of carbon fluxes in Arctic tundra under climate warming?  | <b>S10 Metals</b><br><b>T. Navrátil:</b> Mercury in the central European lake district – Plešné Lake ecosystem  | <b>S15 Dead wood</b><br><b>I. Romashkin:</b> Carbon and nitrogen dynamics along the log bark decomposition continuum in an old-growth boreal forest        | <b>S13 Weathering</b><br><b>C. Akselsson:</b> Weathering dynamics in a changing climate: Scaling up the weathering rates in Swedish forests with the dynamic ecosystem model ForSAFE  |
| 11:45–12:05 | <b>K. Pate/I. Fernandez:</b> Soil biogeochemistry in a changing climate: A snow removal experiment in Maine, USA   | <b>A. Milcu:</b> Grassland carbon and water fluxes under global changes: Insights from the Montpellier European Ecotron  | <b>L. Ukonmaanaho:</b> Logging impacts on the Hg and MeHg load from drained peatland forests in Finland   | <b>Y. Fukasawa:</b> The geographical gradient of pine log decomposition in Japan   | <b>Z. Balogh-Brunstad:</b> Ectomycorrhizal fungi promoted weathering of silicate minerals: A mesh bag study in the Slavkov Forest, Czech Republic   |
| 12:05–12:25 | <b>K. Macháčová:</b> Seasonal patterns in N <sub>2</sub> O fluxes in boreal tree species are proportional to their physiological activity  | <b>A. Richter:</b> Plant diversity effects microbial nutrient cycling  | <b>J. Rydberg:</b> Mercury in arctic soils: Storage, transport and climate change   | <b>R. I. Magnússon:</b> Strategies to elucidate the below-ground fate of carbon from coarse woody debris in forest soils                                   | <b>S. Bonneville:</b> Structural Fe(II) oxidation in biotite by an ectomyrrizal fungi   |

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|-------------|--|--|--|---|----------------|--|--|---|---|
| 12:25–13:25 | LUNCH  |  |  |   |                |  |  |   |   |
| 13:25–14:05 | <b>PLENARY LECTURE</b><br><b>C. Evans: 'Negative emissions' in the terrestrial-freshwater carbon cycle: Adding carbon to a leaky bucket?</b>                       |  |  |   |                |  |  |   |   |
| 14:10–14:30 | <b>J. Schimel:</b> Microbial dynamics and organic matter storage in California grasslands  | S12 Biodiversity   | S10 Metals   | S20 Restoration   | S13 Weathering | <b>H. L. Buss:</b> Weathering and soil formation in a karst critical zone across a gradient in soil degradation and land use   |  |   |   |
| 14:30–14:50 | <b>P. Dijkstra:</b> Frontiers in microbial ecology: Growth and metabolism in soil  |  |  |   |                | <b>J. M. H. van Diggelen:</b> Driving biogeochemical processes in fen succession: Effects of N deposition, P eutrophication and hydrology  | <b>L. Borůvka:</b> Effect of stand factors on the content of potentially toxic elements in forest soils of the Czech Republic  | <b>C. X. Chang:</b> Limitations for tree growth on reconstructed soils in the oil sands depend on the capping strategy        | <b>X. Xu:</b> Effect of changes in throughfall on soil methane and nitrous oxide fluxes under a temperate mature forest, northeastern China |
| 14:50–15:10 | <b>E. Halmeenmäki:</b> The role of methanogens and methanotrophs in the CH <sub>4</sub> fluxes in boreal forest ecosystems   | S8 Phosphorus  | S17 Archives   |   | S3 Atmosphere  | <b>O. van Straaten:</b> Impacts of burning on soil nitrous oxide (N <sub>2</sub> O) and nitric oxide (NO) emissions in two wooded savanna sites in Burkina Faso                      |  |   |   |
| 14:50–15:10 | <b>F. Lang:</b> The response of beech forest ecosystems to P scarcity  |  | <b>K.-H. Knorr:</b> Peat decomposition, elemental records, and heavy metals in two pristine peatlands of the Changbai Mountains, China | <b>S. Miyake:</b> Biomass crop production on 'underutilised agricultural land' as a sustainable land management option?                   |                |  |  |   |   |
| 15:10–15:25 | COFFEE BREAK   |  |  |   |                |  |  |   |   |
| 15:25–15:45 | <b>P. Gundersen:</b> Has long-term elevated N deposition changed soil organic matter (SOM) accumulation, microbial community structure, and the reactivity of SOM? | S8 Phosphorus  | S17 Archives   | S20 Restoration   | S3 Atmosphere  | <b>P. E. Karlsson:</b> Impacts of ozone exposure, nitrogen deposition, meteorological parameters and stand characteristics on annual stem growth of Norway spruce in southern Sweden |  |   |   |
| 15:45–16:05 | <b>F. Oulehle:</b> Soil acidification exerts greater control over carbon soil fluxes than nitrogen addition  |  |  |   |                | <b>L. Celi:</b> Abiotic coprecipitation controls organic P cycling in soil   | <b>A. Veron:</b> Trace elements, lead isotopes and pollens reveal large-scale metallurgical imprints during the Achæmenid Empire and Holocene brusque climate changes in the Persepolis region (SW Iran) | <b>J. Frouz:</b> The role of litter input and bioturbation in carbon storage in reclaimed and non-reclaimed post-mining sites | <b>I. Hůnová:</b> Trends in surface ozone observed in Czech forests in the past two decades   |
| 16:05–16:25 | <b>E. Kaštovská:</b> Links between root exudation and N cycling in the plant-soil system: Competitive versus conservative species                                  |  |  |   |                | <b>R. Bol:</b> Biogeochemistry of a particulate sort   | <b>M. E. Kylander:</b> A high peat and carbon accumulation event driven by changes in dust mineralogy  | <b>O. Vindušková:</b> Soil development on a long chronosequence of landslides in the Outer Western Carpathians                | <b>J. W. M. Pullens:</b> Carbon balance of an alpine peatland on Monte Bondone, Italy   |
| 16:25–16:45 | <b>A. Guhr:</b> Effect of hydraulic redistribution by two distinct saprotrophic fungi on carbon mineralization and nitrogen translocation in dry soil              |  |  |   |                | <b>L. Yu:</b> Evaluation of the incorporation of the phosphorus cycle in the dynamic forest model ForSAFE  | <b>S. V. Hansson:</b> Legacy pollution in the contemporary environment: From old mines to brown trout  | <b>F. Buzek:</b> Carbon isotope study of soil amendment with maize fermentation digestate                                     |   |
| 16:25–16:45 |  | <b>R. Giesler:</b> P-limitation in tundra ecosystems: Effects of vegetation, elevation and herbivory | <b>A. Martinez Cortizas:</b> Another toolkit for peat research: FTIR-NMR-PLS   | <b>L. A. Ovsepyan:</b> Dynamics of microbial and enzymatic activity during the self-restoration of post-agrogenic soils in Central Russia |                |  |  |   |   |
| 16:45–18:00 | POSTER SESSION   |  |  |   |                |  |  |   |   |
|             | <i>Invited talks are on gray background</i>  |  |  |   |                |  |  |   |   |